

Amendments to the Claims:

The following Listing of Claims will replace all prior versions of claims in the application:

1-34. (Canceled)

35. (Previously Presented) The layered sheet construction of claim 29 38 which is wound into a helix having successive winds spaced apart to form a gap.

36. (Currently Amended) A layered sheet construction comprising:

- a. at least one gas permeable, water impermeable layer comprising a microporous layer coated with a gas permeable, polymeric coating;
- b. a gas delivery layer proximate the layer of part a, which gas delivery layer comprises a base having a side on which there are a plurality of walls forming a plurality of separate flow channels through which gas can be conveyed to the layer of part a the ends of said walls opposite the base being attached to the microporous layer; and further comprising a microbial population proximate the layer of part a.

37. (Currently Amended) A process for removal of at least one organic substance or at least one nitrogen source from an aqueous medium containing such a source, said process comprising:

- a. providing at least one layered sheet construction of claim 29 36;
- b. establishing a microorganism layer on the layer of part a. of the layered sheet construction;
- c. supplying a gas to the gas delivery layer of the layered sheet construction; and
- d. contacting the aqueous medium with the microorganism layer.

38. (Currently Amended) A layered sheet construction comprising:

- a. at least one gas permeable, water impermeable microporous membrane layer; and
- b. a gas delivery layer proximate the layer of part a. which gas delivery layer comprises a base having a side on which there are a plurality of walls forming a plurality of separate flow channels through which gas can be conveyed to the layer of part a the ends of said walls opposite the base being attached to the microporous layer;

the layer of part a. being oleophobic or having improved oleophobicity, because of having at least one of the following characteristics:

- i. a coating of a composition comprising a fluorochemical or fluoropolymer which optionally is curable;
- ii. a surface treated by ionizing radiation or plasma discharge in the presence of a gaseous fluorinated species;
- iii. fluorochemical additives within the composition of the gas permeable, water impermeable layer; or
- iv. a coating of polydimethylsiloxane.

39. (Currently amended) The layered sheet construction of claim 32 38 in which the layer of part a. is micro-porous, having pore sizes in the range of 0.05 to 1.0 micrometers.

40-42.(Cancelled)

43. (Withdrawn) A process for removal of at least one organic substance or at least one nitrogen source from an aqueous medium containing such a source, said process comprising:

- a. providing at least one layered sheet construction of claim 38;
- b. establishing a microorganism layer on the layer of part a. of such layered sheet construction;
- c. supplying a gas to the gas delivery layer of said layered sheet construction; and
- d. contacting the aqueous medium with the microorganism layer.

44. (Withdrawn) A layered sheet construction comprising:

- a. at least one, gas permeable, water impermeable layer;
- b. a gas delivery layer proximate the layer of part a. which gas delivery layer provides a means through which gas can be conveyed to the layer of part a; and
- c. at least one microbial support layer proximate the layer of part a. located on the side of the layer of part a. opposite the gas delivery layer, said microbial support layer comprising a material suitable for the attachment and growth of a microbial population.

45. (Withdrawn) The layered sheet construction of claim 44 in which the layer of part a. is porous.

46. (Withdrawn) The layered sheet construction of claim 44 further comprising a microbial population either one or both of proximate or inside the microbial support layer.

47. (Withdrawn) The layered sheet construction of claim of claim 44 wherein the microbial support layer is positively charged.

48. (Withdrawn) The layered sheet construction of claim 44 wherein the microbial support layer comprises at least one absorptive filler material selected from the group consisting of fossil lignocelluloses, peat, coal, coke, charcoal, activated carbon, finely divided distillation residues, inorganic fillers, plastic particles, and mixtures thereof.

49. (Withdrawn) The layered sheet construction of claim 44 in which the gas delivery layer comprises a base having a side on which there are a plurality of walls forming flow channels through which gas can be conveyed to the layer of part a.

50. (Withdrawn) The layered sheet construction of claim 44 in which the gas delivery layer is both porous and gas permeable.

51. (Withdrawn) The layered sheet construction of claim 50 in which the gas delivery layer comprises a material selected from the group consisting of foams, woven fabrics and non-woven fabrics.

52. (Withdrawn) The layered sheet construction of claim 44 in which the layer of part a. is oleophobic or has improved oleophobicity, having at least one of the following characteristics:

- i. a coating of a composition comprising a fluorochemical or fluoropolymer which optionally is curable;

- ii. a surface treated by ionizing radiation or plasma discharge in the presence of a gaseous fluorinated species;
- iii. fluorochemical additives within the composition of the gas permeable, water impermeable layer; or
- iv. a coating of polydimethylsiloxane.

53. (Currently Amended) A process for removal of at least one organic substance or at least one nitrogen source from an aqueous medium containing such a source, said process comprising:

- a. providing at least one layered sheet construction of claim 44 56;
- b. establishing a microorganism layer on or in the microbial support layer of such layered sheet construction;
- c. supplying a gas to the gas delivery layer of said layered sheet construction; and
- d. contacting the aqueous medium with the microorganism layer.

54-55. (Cancelled)

56. (Currently Amended) A layered sheet construction comprising:

- a. at least one gas permeable, water impermeable microporous membrane layer;
- b. a gas delivery layer proximate the layer of part a, which gas delivery layer comprises a base having a side on which there are a plurality of walls forming a plurality of separate flow channels through which gas can be conveyed to the layer of part a; and
- c. at least one microbial support layer located on the side of the gas permeable, water impermeable layer of part a opposite the gas delivery layer, said microbial support layer comprising a material suitable for the attachment and growth of a microbial population, and said microbial support layer being ~~loaded with a filler selected from the group consisting of peat, lignite, mineral coal, coke, charcoal, activated carbon, finely divided distillation residues, granular metal oxides, inorganic fillers, plastic particles and mixtures thereof rendered hydrophilic, or having increased hydrophilicity, by a means selected from:~~ i. being coated with a hydrophilic polymer; ii. having a hydrophilic polymer grafted to the microbial support layer; iii.

incorporation of a surface active additive having a hydrophilic chemical group into the microbial support layer; and iv. a process comprising placing a microporous polymeric membrane in an ion sheath of a plasma containing a reactive species which reacts with the membrane surface and pore interiors.

57. (Previously Presented) A layered sheet construction comprising:

- a. at least one gas permeable, water impermeable microporous membrane layer;
- b. a gas delivery layer proximate the layer of part a, which gas delivery layer comprises a base having a side on which there are a plurality of walls forming a plurality of separate flow channels through which gas can be conveyed to the layer of part a; and
- c. at least one microbial support layer located on the side of the gas permeable, water impermeable layer of part a opposite the gas delivery layer, said microbial support layer comprising a material suitable for the attachment and growth of a microbial population and said microbial support layer characterized by carrying a net positive surface charge.

58. (New) The layered sheet construction of claim 56 in which the microbial support layer is a microporous polymeric membrane of part c. iv. of which the interiors of the pores have bonded thereto a species selected from the group consisting of oxygen, nitrogen, silicon, carbon, hydrogen, sulfur and combinations thereof.